# A STUDY ON THE NATURE OF LEARNING BEHAVIOUR PATTERN AMONG UNIVERSITY STUDENTS

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#### **ABSTRACT**

Tides of changes in the world economy, transportation and communication are resulting in increased levels of interdependence among individuals, groups, organizations and society as a whole. Students can be from diverse cultures, ethnic graups, language graups and religians, as well as fram different ecanamic sacial classes and ability levels. At the same time there are differences between disciplines or course of study in teaching and learning, which creates patterns of interaction that result in diversity, being valued or rejected and impact on the kind of attitudes and values ane develap. When varied students are braught tagether, whether the diversity, results in pasitive ar negative autcames depend largely an haw learning situatians are structured; campetitively, individualistically ar capperatively. While India is undergoing a particularly turbulent time, it has become prime requirement to inculcate in the young minds the values of cooperative learning. With these theoretical assumptions the author of the present study aimed at exploring the nature of learning behavior pattern (coaperative, competitive and individualistic) among the post graduate students of the three major disciplines of the selected State aided Universities of West Bengal. Data has been collected from 180 randomly selected university students. The statistical treatment has been restricted to ANOVA and t-test. Data based fact highlighted the fallowing facts: (i) the students were found to be highly inclined towards capperative learning attitude; (ii) Science students were found to be most coaperative in terms of learning attitudes and comparatively arts students were found to be least cooperative; (iii) Science and commerce students were almost uniformly inclined towards competitive learning attitudes than arts students; (iv) Male and female students showed no significant difference in the nature of learning behaviar attitudes (caaperative, campetitive, individualistic). The cantributian af the present study lies faremast in the emphasis of considering the significance of creating practical situations for the implication of the student's cooperative learning behavioral patterns through the core curriculum in the educational institutes.

#### INTRODUCTION

Though helping students to leorn better would oppeor to be a straightfarward gaal, it needs careful analytical vision on the part of the teochers, curriculum constructors, educational administrators and planners to frome the whale fram the perspective at the students. There are many ways and aspects of perceiving 'teaching and learning' (Fry, 2003). Student's interaction pottern or students interpersonal relation is perhaps one of the most neglected aspects at teaching and learning, causing tremendous impact on the immediate outcome and as well as on the further consequences (Knutson, 2001). The predaminant methad at teaching in aur educational institutes merely enables student to develop skill to engage in ocquiring knowledge through their study

moteriol. The most ignored ospect of teoching is that little time is devated for creating a stimulating environment where knawledge can be created and values can be developed through student interaction patterns within the educational institute and the curriculum fromework (Yaram, H. 2005). Values enshrined fram childhaad become inherent in the young mind and later on take its own course influencing every areno. It is in fact one of the mast impartant aspect af instruction where students learn ta wark with different persanality traits, recagnize and develop healthy values, and skills of accepting each other which will help them to sustain and develop better in this campetitive yet pragressive warld, and at the same time keeping their own uniqueness intact.

There are three basic ways af haw students can interact

with each other as they learn. They are: 1) They can compete to see who is 'superior'; 2) they can work *Individualistically* toward a goal without paying attention to other student's failure or success; or 3) they can work cooperatively with a vested interest in each other's learning as well as their own (Owens and Straton, 1980, Owens and Barnes, 1992; Crozier, 1997). Of the three interaction patterns, competition is presently the most dominant (Johnson and R. Johnson, 1991). This competitive expectation is already widespread when students enter school and grow stronger as they progress through school into their respective profession. The fact can be substantiated, if we closely analyze today's younger generation in different work force; be in a business organization, a call centre job or any industries or even the day-to-day life situations.

#### Disciplinary differences

In schools and colleges the primary source of learning is the discipline or the course content. Disciplines are classically defined as domains of knowledge that include specialized vocabularies and accepted theories, systematic research strategies with techniques for replication and validation (Dressel and Mayhew, 1974). The learning tasks for students in physical and social sciences and the humanities thus differ considerably, and students adopt a different approach in order to be successful in each of them (Donald, 1999; 2000; and Dubuc, 1999). Several studies indicate that there are differences between fields of learning which impact on the kind of attitudes and values (cooperative, competitive, individualistic) one develops. Although not all of these differences may be due to genuine characteristics of disciplines (Jens-Christian Smeby 1996; Riding, and Rayner, 1998). Academics identify strongly with their subject discipline (Neumann, 2001). Disciplinary differences affect academic identity (e.g. Becher, 1989; Smeby, 1996) and which cause impact on the overall performance. Thus differences may be subjective and owe more to the working styles of individual academics than to genuine disciplinary differences (Smeby, 1996), Bo Heffler (2001) found significant differences between learning styles with respect to gender.

#### Cooperative learning

Without the cooperation of its members society cannot survive, and the society of man has survived because of the cooperation of its members that made survival possible. It was not an advantageous individual here and there who did so, but the group. In human societies the individuals who are most likely to survive are those who are best enabled to do so by their group. (Ashley Montagu, 1965)

There is a long history of research on cooperative, competitive, and individualistic efforts (Johnson, D.W., and Johnson, R., 1989). Cooperative learning is one of the most remarkable and fertile areas of theory, research, and practice in education. Voluminous research have compared cooperative learning to various control methods on a broad range of measures and now there is no second thought on the fact regarding the positive effect of cooperative learning pattern and attitudes not only in academics but also other diverse aspects of every day life situations (Cohen and Lotan, 1997; Sharan and Sharan, 1992, Slavin, 1991). Research clearly indicates possible advantages of cooperation over competitive and individualistic efforts; (a) higher achievement and greater productivity; (b) more caring, supportive, and committed relationships; and (c) greater psychological health, social competence, and self-esteem. The positive impact of cooperation over others emphasizes educators to take cooperative learning one of the most valuable tools of education (Deutsch, 1962; Johnson and Johnson, 1974, 1989, 1999; Cohen, 1994; Maruyama, 1983; Kohn, 1992; Sharan, 1980; Slavin, 1991; SaponShevin, Ayres, and Duncan 1994). So in a country like India, where every day we have to study, work, interact and live together with so much diverse population it becomes a necessity that the values of cooperative learning be infused in the learner from a very early age for possible positive outcomes.

Most of the countries in the west do consider its importance and they are trying and also have already implemented such efforts in the school and college core curriculum (Puma, Jones, Rock, and Fernandez, 1993). Efforts of incorporating cooperative learning activities

have taken place in every major subject, at all grade levels, in all types of schools in many countries in the west (Cahen, 1994; Johnson and Jahnsan, 1989; Sharan, 1980; Slavin, 1977). In India it seems that as if we still dan't acknowledge the significance and importance of such a broad and important area of instruction. There are many impartant questians in research an this tapic, and a great deal af development and evaluation remains to be done.

#### Emergence of the Problem

Fram the perspective of faculty, learning is a matter of disciplinary knowledge and methods of inquiry, but the expectations of students differ across disciplines. Students fram different disciplinary backgraunds sametimes differ from one another in their learning style preferences (Jens-Christian Smeby, 1996; Riding, and Rayner, 1998). Pluralism and diversity amang students create an opportunity, but like all opportunities, there are potentially either positive or negative outcomes. Each type of interdependence (caaperative, campetitive, individualistic) teaches a set of values and creates patterns of interaction that result in diversity being valued or rejected.

In today's environment it has become an obligation to inculcate in the young minds the cancept of 'learning to live tagether which can came with the values of cooperation. The teaching - learning process in the various disciplines (arts, science, and commerce) includes different syllabus, differences in the practical vis-a-vis theoretical part and there is also differences in the method of teaching the course. An important part of the day and the mast crucial stage and years of the students are spent in 'learning' the caurse cantent af the particular discipline the student chooses after class X in an educational environment among peers and teachers. In humanities ar arts and cammerce the majar partian af the curriculum is theoretical based and mostly based on class notes. There is no scope for practical approach and students rarely get a chance within the curriculum ta wark in graups or in caoperation with each other. The curriculum and the exam-oriented way of teaching and learning infuse in them the importance of being campetitive and individualistic to sustain in this competitive world. Students thus adopt the examoriented learning attitude and pattern fram the very initial stage and they hardly camprehend the subject matter. In science stream, although the overall picture is same, the practical based subject students get a chance to work in small ar large heterageneaus ar hamagenaus graups. Thus, there are still lat of scape far interaction with each other in close proximity apart from taking class notes or being just theoretical learners. It can be an important explarative research tapic ta find whether there is any noted difference in learning patterns in the students from different disciplines because of the differences in the caurse and syllabus and as well as the way it is taught. Also, what can be done from the point of view of the curriculum constructors is a promising area for research.

#### Objectives of the study

With these theoretical assumptions by the author, the present study was conducted with the following abjectives:

- To identify the type of learning behavior attitude (coaperative, campetitian and individualistic) among the university students.
- Ta identify the nature af learning behavior attitude (co-operative, competition and individualistic) of the university students in terms of academic discipline (arts, science, cammerce).
- Ta identify the nature of learning behavior attitude (co-operative, campetition and individualistic) of the university students in terms of gender.

#### **Hypothesis**

The majar hypotheses taken for the present study under investigation are:

- There is no significant difference in the nature of learning behavior attitudes (cooperative, campetitive, individualistic) at the University students with respect to academic disciplines (arts, science, commerce)
- There is no significant difference in the nature of learning behavior attitudes (cooperative, campetitive, individualistic) af the University students

with respect to gender (male and female)

#### Samples

Data has been callected fram 180 university students fram different campuses of Calcutta University, Kalyani University and Rabindra Bharati University fram three braad disciplines namely arts, science and cammerce. The sample was selected by stratified sampling technique. The sample cansisted af heterageneaus mass af students in terms af lacality (rural, urban and semi urban), caste (mainly Hindu, Muslim, Christian), class (lawer, upper and middle class), thaugh few students were fram ather states but mainly mast af them were Bengali. The mean age being 23 years. The final aver all respanse rate was 180 University students (60 arts, 60 science and 60 cammerce). Tatal 90 females and 90 males answered the questiannaires. The data were tested far narmal distribution. This study is a result of a pilat study far partial fulfillment af a majar Praject wark.

#### Tools

The taals used far this study were:

- (a) General Infarmatian schedule (GIS)
- (b) Learning behaviar attitude Inventary (Ca-aperative, campetitive and individualistic) far university students-Ray and Halder (2006). The test was standardized far reliability and validity. The test-retest reliability caefficient is .79 and the validity caefficient of the scale is .83.

#### Statistical treatment

The statistical treatment has been restricted to Mean, S.D., ANOVA and t-test. Findings have been supported with qualitative analysis. (Table. 1 and 2)

#### Findings and discussion

Learning patterns are individual preferences and tendencies that influence learning and perfarmance (Smith, 1982). There can be a strang relationship between learning attitudes and mativation to learn, involvement in learning activities, attitudes towards instructors, and self efficacy (Jahnsan and Jahnsan, 1978). Therefore, learning patterns may be an important variable that influences the educational pragram. There are many different learning preferences described in the literature.

	Mean and S.D amang University students							
Variables	Tatal students N=180	Tatal Male N=90	Total Female N=90	Arts N=60	Science N=60	Commerce N=60		
Caaperative	M=28.61	M=28.90	M=28.32	M=27.50	M=29.95	M=28.37		
N=20	S.D=3.32	S.D=3.30	S.D=3.33	S.D=3.32	S.D=4.40	S.D=5.95		
Campetitive	M=24.88	M=24.48	M=25.29	M=27.55	M=23.47	M=23.63		
N=20	S.D=4.40	S.D=4.41	S.D=4.37	S.D=3.85	S.D=4.22	S.D=3.89		
Individualistic	M=25.06	M=24.82	M=25.29	M=27.26	M=23.00	M=24.9		
N=20	S.D=5.95	S.D=6.04	S.D=5.87	S.D=5.15	S.D=5.51	S.D=6.41		

Table 1. Mean (M), Standard Deviation (S.D), for Learning Behavior pattern inventory (Cooperative, competitive, individualistic) of the University students of the three Disciplines (arts, science, and commerce)

	'F' value			't' value			
Variables	Main effect gender	Main effect discipline	Interactive effect Gender vs discipline	Arts vs	Science vs commerce	Cammerce vs arts	
Caaperative	F=1.43	F=9.14*	F=0.37	`t'=-4.41 <sup>*</sup>	Υ'=2.92**	't'=1.67NS	
	P=0.23	P=0.00	P=0.69	P=0.00	P=0.00	P=0.10	
Campetitive	F=1.87	F=20.27*	F=1.27	't'=5.08 <sup>**</sup>	't'=-0.21NS	't'=-566**	
	P=0.17	P=0.00	P=0.29	P=0.00	P=0.84	P=0.00	
Individualistic	F=0.30	F=8.33*	F=0.63	't'=4.41 <sup>**</sup>	ή'=-1.68**	't'=-2.31 <sup>**</sup>	
	P=3.39	P=0.00	P=0.54	P=0.00	P=0.09	P=0.024	

\*\* Significant at .01 level

\* Significant at .05 level NS Not Significant

Table 2. 'F' ratio (Two Way ANOVA) and't' test values for Learning Behavior pattern inventory (Cooperative, competitive, individualistic) of the University students of the three Disciplines (arts, science, commerce)

This study investigated caaperative, campetitive and individualized learning patterns.

The findings are as fallaws:

- There is no significant difference in the nature of learning behavior attitudes (coaperative, competitive, individualistic) of the University students with respect to academic disciplines (arts, science, commerce). (Table 2)
- There is no significant difference in the nature of learning behavior attitudes (coaperative, competitive, individualistic) of the University students with respect to gender (male and female). (Table 2)
- There is significant difference between the arts and science students in respect to caperative learning attitude. (Table 2)

- There is significant difference between the science and commerce students in respect to cooperative learning attitude. (Table 2)
- There is no significant difference between the commerce and arts students in respect to cooperative leorning attitude. (Table 2)
- There is significant difference between the arts and science students in respect to competitive learning attitude. (Table 2)
- There is significant difference between the commerce and orts and science students in respect to competitive learning attitude. (Toble 2)
- There is no significant difference between the science and commerce students in respect to competitive learning attitude. (Table 2)
- There is significant difference between the arts and science students in respect to individualistic learning ottitude. (Toble 2)
- There is significant difference between the commerce and science students in respect to individualistic learning attitude. (Table 2)
- There is significant difference between the commerce and arts students in respect to individuolistic leorning attitude. (Table 2)

The findings of the present study dispel the myth that students do not want to work cooperatively, but on contrary they are interested in collaborative group works within the curriculum. Although the learning patterns meosured in the present study were just the perceived learning attitudes of the students and not the actual learning pattern they indulge while learning. To determine the actual leorning pattern, students need to be ossessed in o reol clossroom situation. Students were found to be genuinely interested in sharing and cooperating with each other. Students showed competitive attitudes due to the competitive demands of modern life situotions, but just being competitive can't be taken as being noncooperative with peers. Student's proneness towards cooperation os well as competition is a healthy ottitude omong students for learning.

However, our present education system doesn't create

and offer stimulating environment for the implication of such healthy collaborative efforts. The primary paradigm at universities is the lecture method combined with a competitive assessment process involving individual exoms graded on a curve. Thus, the students are bound to learn within the prescribed stereotype curriculum individualistically, without exploring their age old inherent social instinct. Students in schools and colleges get exposure in the form of co-curricular activities where they get a chance to know the heterogeneity among themselves but in higher education they rarely get a chance to cohere even academically or in any other ways. In science streams, students get ample of scope for interactive tasks but in commerce and arts streom due to the theoretically-bosed, notes-driven classes students do not get any platform to intermingle with each others which creates on invisible woll on their mental horizon. They hordly learn to know or volue obout the existing diversity and plurolity. The existing plurolity and diversity of our Indian society can be used to bring about positive outcomes among the student community. Three types of social interdependence cooperation, competition and individualism influence either positive or negative outcomes among students from diversified background. This does not mean that competitive and individualistic efforts should be discouraged, but rather they should be taught the inherent values of oll the three patterns in such a way so that knowingly or unknowingly the values will become a port and porcel of life (Johnson and Johnson, 1993). Out of the three characteristics traits, cooperative learning should be encouraged for the future well-being of students as well as the society through which we are undergoing in the present era.

Irrespective of disciplines, all the students showed high cooperative learning attitudes, but among competitive learners marked difference was noted between the three disciplines. Individualistic learners olso showed prominent disciplinary differences. Thus, it can be significantly indicated that different disciplinary differences like the course content, syllobus, method of teoching etc., do have impact on the kind of learning patterns the students incorporate (Donald, 1999; 2000; and Dubuc, 1999;

Jens-Christian Smeby 1996; Riding and Rayner, 1998). Further research and exploration with related campanents is needed in order to substantially and scientifically prave ar disprave particular phenamenan.

The current debate in education is facused an haw we can help students to be successful both academically and socially. Students' learning goals may be structured to pramate caaperative, campetitive, ar individualistic effarts fram the initial years of schooling. Caaperative learning is a personal philosophy, not just a classroom technique. In all situations where people come together in graups, it suggests a way af dealing with people which respects and highlights individual graup member's abilities and contributions (Panitz 1997; Johnson, Johnson and Halubec 1990; Felder 1997). Teachers, curriculum designers and educational planners have to keep in mind that there is a difference between simply having students work in a group and structuring groups of students to work caaperatively. Putting students into graups daes nat necessarily gain a cooperative relationship; it has to be structured and managed properly by the teachers. A caaperative learning graup has to have the fallowing essential elements in order to fruitfully import its worth, they are: (a) Positive interdependence; (b) Face-to-face interaction; (c) Individual and group accountability; (d) Interpersanal and small graup skills; (e) Graup pracessing (Johnson and Johnson, 1993). It is time for the discrepancy to reduce the gap between what research indicates is effective in teaching and what teachers actually da.

In its fullest canceptian, caaperative learning pravides a radically different approach to instruction, whose possibilities have been trapped only on a limited basis in India. Time has naw came that we have to make caaperative learning a part of care curriculum in our 'teaching and learning' and find out practical ways to seed the young minds of our students. The significance of caaperative learning becames a matter of cancern even for preventing and alleviating many of the social problems faced globally by children, adolescents, and young adults.

#### Conclusion

In general, university students were faund to be highly inclined towards cooperative learning attitude. Science students were found to be most cooperative in terms of learning attitudes and camparatively arts students were faund to be least cooperative. But science and commerce students were almost uniformly inclined towards campetitive learning attitudes than arts students. Arts students shawed uniform tri-directional learning behavior attitudes (Cooperative, competitive, individualistic) without much difference which itself is an indication that their indication towards learning attitudes is not beyond criticism. Male and female students showed no significant difference in the nature of learning behavior attitudes caaperative, (campetitive, individualistic).

#### Applied value of the study

The contribution of the present study lies faremast in the emphasis an the impartance of cansidering the significance of cooperative learning behavior pattern, and at the same time, creating situations for practical implication of the inherent values of cooperative learning in the context of present day learning situation. With the result of globalization people tends to be more individualistic in their way af thinking in every day life situations and collaboration is becaming extinct in today's world but is the most needed one. Everybody is thinking of personal benefit and gain. Variety of talents and ability gets channelized negatively which can be utilized in a significant way. Yet, people may not have the needed knowledge and skills to perform their tasks in interdisciplinary and geographically dispersed teams. Cansidering the lack af effarts praviding an educational program on collaboration in universities, content based on learning style preferences may be helpful in developing mare effective values af callabaration among the students. Further, knowledge of learning style preferences may help to increase our understanding of cagnitive pracesses in callabaration because different learning style modes process infarmation differently (James and Gardner, 1995). The more students care about each other, the harder they will work to achieve

mutual learning goals. Long-term and persistent efforts to achieve do not come from the head; they come from the heart (Johnson and Johnson, 1993). If thought scientifically and applied practically; the values of cooperative learning can prove miracles resulting in not only individualistic success and personal gain but also the progress of the society as a whole. The values of cooperative learning could be used for preventing and treating a wide variety of social problems such as diversity (racism, sexism, inclusion of handicapped), anti-social behavior (delinquency, drug abuse, bullying, violence, incivility), lack of pro-social values and egocentrism, alienation and loneliness, psychological pathology, low self-esteem, and many more. Students are the builders of the nation. Teachers with their innovative ways of teaching and learning can infuse such tasks in students so that the students can practically work on developing cooperative and collaborative values which are the need of the hour.

#### References

- [1]. **Becher, T.** (1989). Academic Tribes and Territories: Intellectual Enquiry and the Cultures of Disciplines, SRHE / OU Press, p 200.
- [2]. Johnson, D.W., Maruyama, G., Johnson, R., Nelson, D., and Skon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. Psychological Bulletin, 89, 47-62.
- [3]. Cohen, E. (1994). Restructuring the classroom: Conditions for productive small groups. Review of Educational Research, 64, 1-35.
- [4]. Cohen, E., and Lotan, R., (Eds.) (1997). Working for equity in heterogeneous classrooms: Sociological theory in practice. New York: Teachers College Press.
- [5]. Coleman, J. (1961). The Adolescent Society. New York: Free Press.
- [6]. Crozier, W. R. (1997). Individual learners. Personality differences in education. London: Routledge.
- [7]. Deutsch, M. (1962). Cooperation and trust: Some theoretical notes. In M. R. Jones (Ed.), Nebraska symposium on motivation (pp. 275-319). Lincoln, NE: University of Nebraska Press.

- [8]. Donald, J. G. (2002). Learning to think: Disciplinary perspectives. San Francisco: Jossey-Bass.
- [9]. Donald, J. G., and Dubuc, P. (1999). Report on students' conceptualizations of learning, 1994-1995. Centre for University Teaching and Learning, McGill University.
- [10]. Dressel, P., and Mayhew, L. (1974). Higher education as a field of study. San Francisco: Jossey-Bass.
- [11]. Knutson, E. M. (2001). Fostering student-student interaction in a whole group setting The French review, 74, 1138-1151.
- [12]. Fry, H., S. Ketteridge, Marshall, (Ed) (2003). A Handbook for Teaching and Learning in Higher. Education Enhancing Academic Practice. S. Taylor & Francis; 2 edition, p. 416.
- [13]. Heffler, B., (2001). Individual Learning Style and the Learning Style Inventory Educational Studies, Volume 27, Issue 3 September, p. 307–316.
- [14]. James, W. B. and Gardner, D. L. (1995). Learning styles; Implications for distance learning (ERIC Document reproduction Service no. EJ 514356).
- [15]. Johnson, C. (1993). Influences of Gender and Academic Achievement on Learning Preferences of Middle Grade Students. Paper presented at the Annual Meeting of the Mid South Educational Research Association (November 10-12, 1993).
- [16]. Johnson, D. W., Maruyama, G., Johnson, R., Nelson, D., and Skon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. Psychological Bulletin, 89, 47-62.
- [17]. Johnson, C., and Engelhard, G. (1992). Gender, academic achievement, and preferences for cooperative, competitive, and individualistic learning among African-American adolescents. Journal of Psychology, 126 (4), 385-392.
- [18]. Johnson, D. and Johnson, R. (1998). Cooperative learning and social interdependence theory. In R. Scott (Ed). Theory and Research on Small Groups. New York: Plenum Press.

- [19]. Johnson, D. W., Johnson, R. T., Tiffany, M., and Zaidman, B. (1983). Are low achievers disliked in a caoperative situation? A test of rival theories in a mixed ethnic situation. Cantemparary Educational Psychology, 8, 189-200.
- [20]. Johnson, D. W. (1991). Human relations and your career (3rd. Ed.). Englewood Cliffs, NJ: Prentice-Hall.
- [21]. Johnson, D. W., Johnson, R. T., and Holubec, E. J. (1993). Cooperation in the Classroom (6th ed.). Edina, MN: Interaction Baak Campany.
- [22]. Johnson, D. W., and Johnson, R. (1974). Instructional goal structure: Caaperative, campetitian, ar individualistic. Review of Educational Research, 44, 213-240.
- [23]. Johnson, D. W., and Johnson, R. (1979). Conflict in the classroom: Controversy and learning. Review of Educational Research, 49, 51-70.
- [24]. Johnson, D. W., and Johnson, R. (1989). Cooperation and competition: theory and research. Eding, MN: Interaction Book Company.
- [25]. Johnson, D. W., and Johnson, R. (1999). Human relations: Valuing diversity. Edina, MN: Interaction Book Campany.
- [26]. Kohn, A. (1992). Na cantest (2<sup>nd</sup> ed.). Bastan: Haughtan Mifflin.
- [27]. Montagu, A. (1965). The human revalution New Yark: World Pub Co.
- [28]. Neumann, R. (2001): 'Disciplinary differences and university teaching', Studies in Higher Education, 26 (2), 135-146.
- [29]. Owens, L., and Barnes, J. (1992). Learning Preference Scales: Handbaak and test master set. Melbourne: Australian Council for Education Research Ltd.
- [30]. Owens, L., and Straton, R. (1980). The development of a co-operative, competitive and individualized

- learning preference scale for students. British Journal af Educational Psychology, 50, 147-161.
- [31]. Riding, R. and Rayner, S. (1998). Cognitive styles and learning strategies: Understanding style differences in learning and behavior Landan: David Fultan Publishers. p. 217.
- [32]. Reid, J. M. (1987). The Learning Style Preferences af ESL Students, TESOL Quarterly, 21 (1), p. 87-111.
- [33]. Smeby, J. C., (1996). Disciplinary differences in university teaching, Journal of Higher Education, Education, Narwegian Institute far Studies in Research and Higher Education, Narway, Valume 21 (1), p. 6979.
- [34]. Smeby, J-C. (1996). Disciplinary differences in university teaching, Studies in Higher Education, 21 (1), 69-79.
- [35]. Sharan, S. (1980). Cooperative learning in small groups: Recent methods and effects on achievement, attitudes, and ethnic relations. Review of Educational Research, 50(2), 241-271.
- [36]. Sharan, S., and Sharan, Y. (1992). Group investigation: Expanding cooperative learning. New York: Teacher's College Press.
- [37]. Slavin, R. (1977). Classroom reward structure: An analytical and practical review. Review af Educational Research, 47, 633-650.
- [38]. Slavin, R. (1991). Graup rewards make graupwark. Educational Leadership, 5, 89-91.
- [39]. Smith, A. (1759). The theary af maral sentiments. Reprint. Edited by D. Raphael and A. Maclie. (1976). Oxford: Clarendan.
- [40]. Vygotsky, L. (1978). Mind in society: The development of higher psychological pracesses. Cambridge, MA: Harvard University Press.
- [41]. Yoram, H. (2005). Teaching and Learning in a Community of Thinking. Journal of Curriculum and Supervision, 20, 136-157.

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